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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 48

Application Number: 08/704,400
Filing Date: August 27, 1996
Appellant(s): SOMBROEK ET AL.

Frank C. Nicholas
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/18/2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on 07/14/03 has been entered.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 34 and 35-43 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8). At page 9 last sentence of the Brief are arguments concerning claim 40 since claim 40 claims a timing signal and claim 34 does not. Dependent claim 35 adds to claim 34 the

timing signals found in claim 40. Thus, appellant's grouping of the claims is agreed with.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

EP 62-133	Levine	10-1982

(10) Grounds of Rejection

The entered after final amendment filed on 07/14/03 overcomes the 35 USC 112 second paragraph rejection set forth in the Final Rejection.

The following ground(s) of rejection are applicable to the appealed claims:

The 102 rejection set forth in the final rejection is presented below without any changes to content for the Boards convenience. A minor change in form was made by italicizing and changing the font of the examiner's statements regarding Levine to assist the Board in seeing what the claim claims and what Levine teaches. Also a minor change was made to reflect the amendment made to claim 40 where less was changed to greater, the final rejection addressed in the 102 rejection "equal to or greater" rather than "equal to or less", so a change to the substance of the rejection was not made.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 34-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Levine, EP 0 062 133 A2. This reference was made of record by applicant on the PTO-1449 having a mail room stamp date of 12/04/94.

Applicants specification at page 5 line 32 to page 6 line 1 states: Alternatively, v1 and v2 may be the upper bounds of low-speed and high-speed ranges, the cursor speed being continuously variable through user-interface 106. Thus, with reference to figure 2 the steps from v1 to v2 would not exist but would be illustrated by a sloped line representing cursor speed being continuously variable from v1 to v2 and v2 to v3.

Similarly the claims now claim the actual displacement speed of the cursor is variable within both a first speed range and a second speed range. Thus, the claims are claiming a variable speed cursor with the added language of a first speed range and a second speed range. However, in view of the specification, the claims are claiming a variable speed cursor with an arbitrarily selected first speed range and second speed range and the claims do not claim how the speed is variable within each speed range and they do not claim the specific details of how the first and second speed ranges are determined other than claiming the second speed range occurs after a predetermined time interval after initial application of force to the user interface. Thus, at any time

along the variable cursor speed one may arbitrarily designate a position which represents a transition from v1 to v2 but since v1 is an upper bound the cursor speed would be continuous at the transition from v1 to v2, therefore, the variable cursor speed of Levine teaches applicants claimed invention. Figure 2 of Levine illustrates and page 6 lines 17-19 describes that as time progresses the displacement speed of the cursor increases from point A to point C. Concerning applicant's claim to a first and second speed range, applicant has merely claimed a point on the slope between points A and C shown in figure 2, such as point B, that divides the slope into a first speed range and a second speed range. Thus, the force applied to Levine's button 1 controls the speed of the cursor based upon the length of time force is applied to button 1 and the speed of the cursor is within a low speed range during the beginning of cursor movement and after a predetermined time period the speed of the cursor is in a high speed range.

A detailed analysis of the claims follows.

Claim 34:

Levine teaches a data processing system, comprising:

a display (*page 3 lines 17-25*);

a cursor controller connected to said display for displacement of a cursor represented on said display (*figure 1*); and

a user-interface coupled to said cursor controller (*figure 1*),

said user-interface operable to sense a user-desired manipulation of the cursor based on a time period of an application of force on said user-interface by a user, wherein a displacement speed of the cursor as represented by said display is dependent upon the time period of the application of force on said user-interface by the user (*page 6 lines 17-19 describes cursor speed increasing with time, thus, the slope from point A to point C of figure 2 illustrates increase in speed with time*),

wherein, upon an initial application of force on said user-interface by the user, the actual displacement speed of the cursor is variable within a first speed range (*As discussed above the arbitrary selection of a point that separates the low speed from the high speed is located anywhere along the slope from point A to point C such as point B and between points A and B the cursor speed varies within a low speed range*), and

wherein, upon a predetermined time interval after the initial application of force on said user-interface by the user, the actual displacement speed of the cursor is variable within a second speed range (*As discussed above the arbitrary selection of a point that separates the low speed from the high speed is located anywhere along the slope from point A to point C such as point B and between points B and C the cursor speed varies*

within a higher speed range).

Claim 35:

Levine teaches the data processing system of claim 34,

wherein, during the time period of the application of force on said user-interface by the user, at least one timing signal indicative of a sensing of the user-desired manipulation of the cursor is generated (*inherent to systems that increase the speed of the cursor with time, page 6 lines 17-19, a timing signal is needed since to increase the speed with time a means to count the time of activation of the user interface is necessary which requires a timing signal to be counted*);

wherein the actual displacement speed of the cursor is within the first speed range when a total generation of timing signals is less than a pre-specified number (*as discussed above the arbitrary selection of high speed and low speed ranges along the slope from point A to point C is determined with respect to time, thus, when the time is less than a specified number the slope is between points A and B which is a low speed range*); and

wherein the actual displacement speed of the cursor is within the second speed range when the total generation of timing signals is equal to or greater than the prespecified

number (*as discussed above the arbitrary selection of high speed and low speed ranges along the slope from point A to point C is determined with respect to time, thus, when the time is equal to or greater than a specified number the slope is between points B and C which is a high speed range*).

Claim 36:

Levine teaches the data processing system of claim 35, wherein the at least one timing signal includes at least one vertical timing signal (*Y signal, page 3 lines 17-25*) indicative of a vertical speed component of the user-desired manipulation of the cursor.

Claim 37:

Levine teaches the data processing system of claim 35, wherein the at least one timing signal includes at least one horizontal signal (*X signal, page 3 lines 17-25*) indicative of a horizontal speed component of the user-desired manipulation of the cursor .

Claim 38:

Levine teaches the data processing system of claim 34, wherein, during the activation of said user-interface, said user-interface includes: means for generating at least one timing signal indicative of the user-desired manipulation of the cursor; and

means for counting a total generation of timing signals (*inherent to systems that increase the speed of the cursor with time, page 6 lines 17-19, to increase the speed with time a means to count the time of activation of the user interface is necessary*).

Claim 39:

Levine teaches the data processing system of claim 38, wherein the actual displacement speed of the cursor is within the first speed range when the total generation of timing signals is less than a pre-specified number (*discussed above with regard to arbitrary selection of high speed and low speed ranges along the slope from point A to point C with the section of the slope between points A to B a low speed range*); and wherein the actual displacement speed of the cursor is within the second speed range when the total generation of timing signals is equal to or greater than the prespecified number (*discussed above with regard to arbitrary selection of high speed and low speed ranges along the slope from point A to point C with the section of the slope between points B to C a high speed range*).

Claim 40:

Levine teaches a data processing system, comprising:

a display (*page 3 lines 17-25*);

a cursor controller connected to said display for displacement of a cursor represented on said display (*figure 1*); and

a user-interface coupled to said cursor controller (*figure 1*),

said user-interface operable to sense a user-desired manipulation of the cursor based on a time period of an application of force on said user-interface by a user (*page 6 lines 17-19 describes cursor speed increasing with time, thus, the slope from point A to point C of figure 2 illustrates increase in speed with time*),

wherein, during the time period of the application of force on said user interface by the user, at least one timing signal indicative of the user-desired manipulation of the cursor as sensed by said user-interface is generated (*inherent to systems that increase the speed of the cursor with time, page 6 lines 17-19, a timing signal is needed since to increase the speed with time a means to count the time of activation of the user interface is necessary which requires a timing signal to be counted*),

an actual displacement speed of the cursor as represented by said display is variable within a first speed range when a total generation of timing signals is less than a

pre-specified number (*as discussed above the arbitrary selection of high speed and low speed ranges along the slope from point A to point C is determined with respect to time, thus, when the time is less than a specified number the slope is between points A and B which is a low speed range*), and

the actual displacement speed of the cursor is variable within a second speed range when the total generation of timing signals is equal to or greater than the pre-specified number (*as discussed above the arbitrary selection of high speed and low speed ranges along the slope from point A to point C is determined with respect to time, thus, when the time is equal to or greater than a specified number the slope is between points B and C which is a high speed range*).

Claim 41:

Levine teaches the data processing system of claim 40, wherein the pre-specified number defines a predetermined time interval during the activation of said user-interface (*as discussed above inherent to systems that vary the speed of the cursor with regard to time, time is counted, and thus the transaction from low speed region to high speed region is a pre-specified number the defines a predetermined time interval from point A to point B*).

Claim 42:

Levine teaches the data processing system of claim 40, wherein the at least one timing signal includes at least one vertical timing signal (*Y signal, page 3 lines 17-25*) indicative of a vertical speed component of the user-desired manipulation of the cursor.

Claim 43:

Levine teaches the data processing system of claim 40, wherein the at least one timing signal includes at least one horizontal signal (*X signal, page 3 lines 17-25*) indicative of a horizontal speed component of the user-desired manipulation of the cursor.

(11) Response to Argument

Levine teaches at page 6 lines 9 to 29 and page 7 lines 20 to 23 the cursor rate is proportional to voltage V1 and that cursor rate may change over time. A change in V1 causes a change in cursor rate and a change in Vc, thus, figure 2 is modified by this embodiment to show Vc varying by varying the slope of the curve from point A to point B to point C in order to change the speed of the cursor. Voltage Vc determines the cursor location, see page 6 lines 3 to 5, and the time taken to change Vc determines the cursor speed. Thus from a voltage at point A to a voltage at point B the cursor's speed

is within a first range and thus from a voltage at point B to a voltage at point C the cursor's speed is within a second range. The claims do not define the limits of the first and second ranges, however, appellant in the Summary of the Invention at pages 3 to 5 of the Brief states the limits of the first speed range is 0 to V1 and the limits of the second speed range is V1 to V2. The specification at page 3 lines 22 to 25, page 5 line 32 to page 6 line 1 page 7 lines 24 to 29 and page 8 lines 9 to 20 discusses limits of the first and second speed ranges. Similarly the use of the term range at the cited pages of the specification implies a first speed range of V0 to V1 and a second speed range of V1 to V2. This is exactly what Levine teaches where at an arbitrary point such as point B the first speed range becomes the second speed range.

At page 7 of the Brief appellant quotes the contested limitations of claims 34 and 40.

The claims do not claim what is meant by variable, thus, a prior art reference showing an increase in cursor speed with time teaches the claimed displacement speed of the cursor is variable. As described above Levine teaches increasing the displacement speed of the cursor over time.

At pages 8 to 11 appellant asserts that Levine teaches away from a predetermination of a first speed range and a second speed range. Appellants claimed predetermined time interval, claim 34 line 14, and pre-specified number of timing

signals, claim 40 lines 14 and 17, is an arbitrary point in time after initiation of the user's use of the user interface. This point is any point in time after the user commences use of the user interface. See the specification at page 6 lines 2 to 11 which describes various times when the speed will change from the first speed range to the second speed range. As described above the claims do not claim what is meant by variable, therefore Levine's increasing displacement speed of the cursor over time meets this limitation. Since the claimed displacement speed of the cursor increases with time the cursor's speed near point t1 is nearly the same on either side of time t1. Thus, the claimed first and second time periods, if graphed with speed verses time, would appear the same as the graph of Levine's figure 2 with the sole exception that a point on the curve would designate a change from the first speed range to the second speed range. Thus, at a point in time after the user uses Levine's user interface the cursor will go from the first speed range to the second speed range, for example point B on the curve shown in Levine's figure 2 is a point in time that represents a change from a first speed range to a second speed range.

Pages 8 to 9 of the Brief alleges that Levine teaches a dynamic calculation of a speed range B from points A-C and a speed range D-E starting at point C. Appellants allegation incorrectly interprets the Final Rejection which clearly stated.

> *Thus, at any time along the variable cursor speed one may arbitrarily designate a position which represents a transition from v1 to v2 but since v1 is an upper bound the cursor speed would be continuous at the transition from v1 to v2, therefore, the variable cursor speed of Levine teaches applicants claimed invention. Figure 2 of Levine illustrates and page 6*

> *lines 17-19 describes that as time progresses the displacement speed of the cursor increases from point A to point C. Concerning applicant's claim to a first and second speed range, applicant has merely claimed a point on the slope between points A and C shown in figure 2, such as point B, that divides the slope into a first speed range and a second speed range. Thus, the force applied to Levine's button 1 controls the speed of the cursor based upon the length of time force is applied to button 1 and the speed of the cursor is within a low speed range during the beginning of cursor movement and after a predetermined time period the speed of the cursor is in a high speed range.*

Therefore, the arguments presented at pages 8 and 9 of the Brief are moot.

Pages 10 to 11 of the Brief alleges the Examiner's position is a midpoint of speed region B corresponds to the predetermined time interval, however, the Final Rejection stated *applicant has merely claimed a point on the slope between points A and C shown in figure 2, such as point B, that divides the slope into a first speed range and a second speed range, thus, appellants position is without merit.*

At page 9 last sentence of the Brief appellant alleges that *Levine therefore teaches away from a predetermined time interval for speed range D-E, and in particular, a predetermined time interval for speed range D-E that is defined by a pre-specified number of generated timing signals prior to the release of cursor button 1.* This

argument is directed to claim 40 since claim 40 claims timing signals. As discussed in the Final Rejection, inherent to systems that increase the speed of the cursor with time, page 6 lines 17-19, a timing signal is needed since to increase the speed with time a means to count the time of activation of the user interface is necessary which requires a timing signal to be counted. Thus, as Levine's voltage V1 is increased over time to increase the displacement speed of the cursor a timing signal of some type would be present in the system. Furthermore, equation 1, page 4, shows voltage Vc is a function of time and page 7 line 11 to page 8 last line which describes implementing the variable speed cursor system digitally teaches that a timing signal is present since at page 8 lines 6 to 8 decrementing at regular intervals is discussed to control the displacement of the cursor. Regular intervals in a microprocessor based digital system are defined with a timing signal. The claim does not claim to use the timing signal in making the cursor displacement speed variable. Claim 40 just claims an actual displacement speed of the cursor as represented by said display is variable within a first speed range when a total generation of timing signals is less than a pre-specified number and the actual displacement speed of the cursor is variable within a second speed range when the total generation of timing signals is equal to or greater than the pre-specified number. The pre-specified number of timing signals is merely defining the boundary between the first speed range and the second speed range. It is not used in the claim to do anything other than to define the boundary, thus, a point in time between points A and C is defined by a pre-specified number of timing signals. As the regular intervals of Levine continue, the displacement speed of the cursor increases, at some arbitrary point the

displacement speed of the cursor traverses the boundary between the first cursor speed range and the second cursor speed range. Thus, a timing signal is inherently present in Levine to define the regular intervals.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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